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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

CISCO SYSTEMS, INC.

Plaintiff,

vs.

CAPELLA PHOTONICS, INC.

Defendant.

Case No. 20-cv-01858-EMC

**FIRST AMENDED COMPLAINT FOR
DECLARATORY RELIEF**

JURY TRIAL DEMANDED

Assigned to: Hon. Edward M. Chen

FIRST AMENDED COMPLAINT AND JURY DEMAND

Plaintiff Cisco Systems, Inc. (“Cisco”) hereby demands a jury trial and alleges as follows for its complaint against Defendant Capella Photonics, Inc. (“Defendant” or “Capella”).

PARTIES

1. Cisco Systems, Inc. is a California corporation with its principal place of business on Tasman Drive in San Jose, California 95134.

2. Capella is a Delaware corporation with a principal place of business at 5390 Hellyer Ave, San Jose, CA 95138.

JURISDICTION AND VENUE

3. This action is predicated on the patent laws of the United States, Title 35 of the United States Code, with a specific remedy sought based upon the laws authorizing actions for declaratory judgment in the courts of the United States, 28 U.S.C. §§ 2201 and 2202. This court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1338(a), and 1367.

4. An actual and justiciable controversy exists between Cisco and Capella as to the non-infringement of U.S. Patent No. RE 47,905 (“’905 Patent”). As further alleged below, Capella filed a previous lawsuit against Cisco (“Prior Litigation”) (*See* Exhibit A) alleging infringement of U.S. Patent No. RE 42,368 (“’368 Patent”) (attached as Exhibit B) by Cisco Reconfigurable Optical Add Drop Multiplexer (“ROADM”) products including the Cisco ONS 15454 MSTP, NCS 2000, and ONS 15200 products. Exhibit A, ¶ 20. During the Prior Litigation, the ’368 Patent was placed into *Inter Partes* Review, and the Patent Trial and Appeal Board issued a final written decision cancelling claims 1-6, 9-13, and 15-22 of the ’368 Patent. (*See* Exhibit C). That cancellation was further affirmed by the Federal Circuit. (*See* Exhibit D). After that cancellation took effect, Capella pursued reissue proceedings for the ’368 Patent by filing U.S. Patent Application No. 16/023,127 (“’127 Application”), which issued as the ’905 Patent on March 17, 2020. (*See e.g.*, Exhibit E and Exhibit F). During the course of reissue proceedings, Capella represented that claims of the ’905 Patent have the same scope as claims of the ’368 Patent that Capella accused Cisco of infringing in the Prior Litigation.

5. In addition, on March 17, 2020, Capella filed suit alleging infringement of the ’905

1 patent against the other manufacturers of ROADM equipment that it previously sued¹ for
 2 infringement of the '368 Patent, including Ciena Corp. ("Ciena"), Tellabs, Inc. ("Tellabs"), and
 3 Fujitsu Network Communication ("Fujitsu"). *See* Exhibit T (March 17, 2020, Ciena Complaint) ¶¶
 4 28, 35; *Capella Photonics, Inc. v. Ciena Corp.*, 3-14-cv-03351 (NDCA); Exhibit U (March 17, 2020,
 5 Tellabs Complaint) ¶¶ 40, 50; *Capella Photonics, Inc. v. Tellabs, Inc.*, 3-14-cv-03350 (NDCA);
 6 Exhibit V (March 17, 2020, Fujitsu Complaint) ¶¶ 29, 36); *Capella Photonics, Inc. v. Fujitsu*
 7 *Network Comms., Inc.*, 3-14-cv-03349 (NDCA) ("Capella 2020 Lawsuits"). In its March 17, 2020,
 8 complaints alleging infringement by Ciena, Tellabs, and Fujitsu, Capella asserted that "[o]ne or more
 9 claims of the '905 patent is substantially identical to one or more claims of the original '368 patent."
 10 (*See e.g.*, Exhibit T (Ciena Complaint) ¶ 20; Exhibit U (Tellabs Complaint) ¶ 32; Exhibit V (Fujitsu
 11 Complaint) ¶ 21). Accordingly, Cisco has (and had at the time of filing) a reasonable apprehension
 12 that Capella would pursue further litigation against Cisco for infringement of the '905 Patent.

13 6. An actual and justiciable controversy exists between Cisco and Capella as to the non-
 14 infringement of U.S. Patent No. RE 47,906 ("906 Patent"). As further alleged below, Capella filed a
 15 previous lawsuit against Cisco ("Prior Litigation") (*See* Exhibit A) alleging infringement of U.S.
 16 Patent No. RE 42,678 ("678 Patent") (attached as Exhibit G) by Cisco's ONS 15454 MSTP, NCS
 17 2000, and ONS 15200 products. Exhibit A, ¶ 26. During the Prior Litigation, the '678 Patent was
 18 placed into *Inter Partes* Review, and the Patent Trial and Appeal Board issued a final written
 19 decision cancelling claims 1-4, 9, 10, 13, 17, 19-23, 27, 29, 44-46, 53, and 61-65 of the '678 Patent.
 20 (*See* Exhibit H). That cancellation was further affirmed by the Federal Circuit. (*See* Exhibit D).
 21 After that cancellation took effect, Capella pursued reissue proceedings for the '678 Patent by filing
 22 U.S. Patent Application No. 16/023,183 ("183 Application"), which issued as the '906 Patent on
 23 March 17, 2020. (*See e.g.*, Exhibit I and Exhibit J). During the course of reissue proceedings,
 24 Capella represented that claims of the '906 Patent have the same scope as claims of the '678 Patent
 25 that Capella accused Cisco of infringing in the Prior Litigation.

26 7. In addition, on March 17, 2020, Capella filed suit alleging infringement of the '906

27 ¹ Capella filed complaints against Cisco, Ciena, Tellabs, and Fujitsu on February 12, 2014, in the Southern District of
 28 Florida alleging infringement of the '368 Patent and the '678 Patent. Each of these cases was subsequently transferred to
 this District in July 2014.

patent against the other manufacturers of ROADM equipment that it previously sued for infringement of the '678 Patent, including Ciena Corp. ("Ciena"), Tellabs, Inc. ("Tellabs"), and Fujitsu Network Communication ("Fujitsu"). *See* Exhibit T (March 17, 2020, Ciena Complaint) ¶¶ 28, 35; *Capella Photonics, Inc. v. Ciena Corp.*, 3-14-cv-03351 (NDCA); Exhibit U (March 17, 2020, Tellabs Complaint) ¶¶ 40, 50; *Capella Photonics, Inc. v. Tellabs, Inc.*, 3-14-cv-03350 (NDCA); Exhibit V (March 17, 2020, Fujitsu Complaint) ¶¶ 29, 36); *Capella Photonics, Inc. v. Fujitsu Network Comms., Inc.*, 3-14-cv-03349 (NDCA). In its March 17, 2020, complaints alleging infringement by Ciena, Tellabs, and Fujitsu, Capella asserted that "[o]ne or more claims of the '906 patent is substantially identical to one or more claims of the original '678 patent." (*See e.g.*, Exhibit T (Ciena Complaint) ¶ 23; Exhibit U (Tellabs Complaint) ¶ 35; Exhibit V (Fujitsu Complaint) ¶ 24). Accordingly, Cisco has (and had at the time of filing) a reasonable apprehension that Capella would pursue further litigation against Cisco for infringement of the '906 Patent.

8. This Court has personal jurisdiction over Defendant. Capella is a Delaware Corporation with a principal place of business in San Jose, California, within this District.

9. Venue is proper in this Court under 28 U.S.C. § 1391(b) and (c).

FACTUAL BACKGROUND

HISTORY REGARDING U.S. PATENT NO. RE 47,905 AND U.S. PATENT NO. RE 47,906

10. On February 12, 2014, Capella filed a complaint ("Prior Complaint") (attached as Exhibit A) against Cisco in the Southern District of Florida alleging infringement of the '368 Patent and the '678 Patent. The Prior Litigation was subsequently transferred to this District in July 2014. (*See Capella Photonics, Inc. v. Cisco Systems, Inc.*, Case No. 3:14-cv-03348-EMC, Dkt. 78 (July 24, 2014)).

11. In the Prior Complaint, Defendant alleged that Cisco directly infringed the '368 and '678 Patents, both literally, and under the doctrine of equivalents, by making, using, and selling Cisco's ONS 15454 MSTP and NCS 2000 products:

20. Capella is informed and believes, and thereon alleges, that Cisco has directly infringed and continues to directly infringe, literally and/or under the doctrine of equivalents, the '368 patent by making, using, selling, offering to sell and/or importing optical ROADM products that incorporate a wavelength selective switch ("WSS"), including but not

limited to ONS 15454 MSTP, which offers a fully integrated ROADM solution (further described at www.cisco.com/en/US/prod/collateral/optical/ps5724/ps2006/ps5320/product_data_sheet0900aecd803fc52f_ps13234_Products_Data_Sheet.html), Cisco's NCS 2000, and Cisco's ONS 15200 ("the Infringing Products").

(Exhibit A ¶ 20).

26. Capella is informed and believes, and thereon alleges, that Defendant has directly infringed and continues to directly infringe, literally and/or under the doctrine of equivalents, the '678 patent by making, using, selling, offering to sell and/or importing optical ROADM products that incorporate a wavelength selective switch ("WSS"), including but not limited to the Infringing Products.

(Exhibit A ¶ 26).

12. In particular, Capella alleged that Cisco's ONS 15454 MSTP and NCS 2000 products infringed claims 1-6, 9-12, 15-22 of the '368 Patent (*See* Exhibit K, Capella Infringement Contention for '368 Patent) and claims 1-4, 9, 10, 13, 17, 19-23, 27, 29, 44-46, 53, 61-65 of the '678 Patent (*See* Exhibit L, Capella Infringement Contention for '678 Patent).

13. In addition to the Previous Lawsuit, on February 12, 2014, Capella filed three other lawsuits in the Southern District of Florida against Ciena, Tellabs and Fujitsu ("Other Previous Lawsuits"). *See Capella Photonics, Inc. v. Ciena Corporation*, Case No. 1:14-cv-20530-PAS (February 12, 2014); *Capella Photonics, Inc. v. Tellabs, Inc.*, Case No. 0:14-cv-60350-PAS (February 12, 2014); *Capella Photonics, Inc. v. Fujitsu Network Communications, Inc.*, Case No. 1:14-cv-20531-PAS (February 12, 2014). In the Other Previous Lawsuits, Capella also accused Ciena, Tellabs, and Fujitsu of infringement of the '368 Patent and the '678 Patent for making and selling ROADM products. The Other Prior Lawsuits were also transferred to this District in July 2014. *See Capella Photonics, Inc. v. Ciena Corporation*, Case No. 1:14-cv-20530-PAS, Dkt. 88; *Capella Photonics, Inc. v. Tellabs, Inc.*, Case No. 0:14-cv-60350-PAS, Dkt. 76; *Capella Photonics, Inc. v. Fujitsu Network Communications, Inc.*, Case No. 1:14-cv-20531-PAS, Dkt. 66.

14. Cisco continues to make and sell the ONS 15454 MSTP products. In particular, Cisco continues to make and sell the ONS 15454 MSTP containing SMR-C line cards, including the 15454-40-SMR1-C line card and the 15454-40-SMR2-C line card (collectively, "the Presently Sold ONS 15454 MSTP Products") both of which Capella accused of infringement the '678 and '368

1 patents in the Prior Litigation. *See e.g.*, Exhibit K at pages 2–10; L at pages 2–10.

2 15. In addition, on information and belief, Capella seeks damages for alleged past
3 infringement. (*See e.g.*, Exhibit T (Ciena Complaint) ¶ 25 (“The ’905 and ’906 patents, and all
4 members of the chain discussed above, are assigned to Capella and Capella holds the right to sue and
5 to recover damages for infringement, *including past infringement*, of each of the ’905 and ’906
6 patents.” (emphasis added); *see also* Exhibit U (Tellabs Complaint) ¶ 37; Exhibit V (Fujitsu
7 Complaint) ¶ 26). Cisco has previously sold the Cisco ONS 15454 MSTP containing 15454-40-
8 WSS-C, 15454-40-WSS-CE, and 15454-40-WXC-C line cards (collectively, “Previously Sold ONS
9 15454 MSTP Products”). Cisco has also previously sold the NCS2000 containing the NCS2000-16-
10 WXC-FS line card (“Previously Sold NCS2000 Products”). During the Prior Litigation Capella
11 alleged that the Previously Sold ONS 15454 MSTP Products and Previously Sold NCS2000
12 Products infringed the ’678 and ’368 patents. *See* Exhibit K at 2-3, 7-8, 9, 11, 13-15, 17; *see also*
13 Exhibit L at 2-3, 7-9, 11-12. On information and belief, based on Capella’s allegations against
14 Ciena, Fujitsu, and Tellabs which sought damages prior to issuance of the ’905 and ’906 patents,
15 Capella intends to seek damages from Cisco for the Previously Sold ONS 15454 MSTP Products
16 and Previously Sold NCS2000 Products for alleged infringement of the ’905 patent and ’906 patent.

17 16. During the Prior Litigation, Cisco instituted *Inter Partes* Review proceeding
18 IPR2014-01166 challenging claims of the ’368 Patent on July 15, 2014. (*See* Exhibit M). A Final
19 Decision issued by the Patent Trial and Appeal Board (“PTAB”) on January 28, 2016, held that
20 claims 1-6, 9-13, and 15-22 of the ’368 Patent were invalid. (*See* Exhibit C). Ciena, Tellabs² and
21 Fujitsu also instituted *Inter Partes* Review proceedings against the claims of the ’368 Patent. *See*
22 *Ciena Corporation v. Capella Photonics, Inc.*, IPR2015-00816 (PTAB); *Coriant Operations, Inc. v.*
23 *Capella Photonics, Inc.*, IPR2015-01969 (PTAB); and *Fujitsu Network Communications, Inc. v.*
24 *Capella Photonics, Inc.*, IPR2015-00726 (PTAB).

25 17. The Final Judgments in IPR2014-01166, IPR2015-00816, IPR2015-01969, and
26 IPR2015-00726 were affirmed by the Federal Circuit. *See Capella Photonics, Inc. v. Cisco Sys., Inc.*,

27 _____
28 ² Tellabs was acquired and then merged with and into Coriant (which subsequently was acquired by Infinera in or around October 2018). The Tellabs IPR proceedings were filed by Coriant.

1 711 F. App'x 642 (Fed. Cir. 2018) (*See* Exhibit D).

2 18. Thereafter, Capella placed the '368 Patent into a reissue proceeding on June 29, 2018,
3 as U.S. Application No. 16/023,127 ("the '127 Application"). (*See* Exhibit E (Reissue Patent
4 Application Transmittal)). During prosecution of the '127 Application, Capella requested claims that
5 amended the claims of the underlying '368 Patent that it had asserted against Cisco in the Prior
6 Litigation ("Previously Asserted '368 Claims") to replace the "input port" and "one or more other
7 ports," as recited in the Previously Asserted '368 Claims, with a "fiber collimator input port" and
8 "fiber collimator one or more other ports" (*See e.g.*, Exhibit E (Applicant's Reply to Office Action of
9 June 26, 2019) at 5).

10 19. The United States Patent Office issued a Notice of Allowance for the '127
11 Application on November 8, 2019. (*See* Exhibit N). An Issue Notification for the '127 Application
12 was published by the United States Patent Office on February 26, 2020, stating that the '127
13 Application would result in issuance of U.S. Patent RE 47,905 on March 17, 2020. (*See* Exhibit F).

14 20. Claim 23 is the first independent claim of the '905 Patent. A comparison of claim 23
15 of the '905 Patent against Claim 1 of the '368 Patent, which was previously asserted against Cisco
16 and alleged to be infringed by the Presently Sold ONS 15454 MSTP Products, Previously Sold ONS
17 15454 MSTP Products, and Previously Sold NCS2000 Products, is shown below with the applicant's
18 added language underlined and the applicant's removed language struck through.

19 23. An optical add-drop apparatus comprising an output port and fiber
20 collimators serving as an input port and one or more other ports, the
21 apparatus comprising:
22 ~~an~~ the fiber collimator input port for an input multi-wavelength optical
23 signal having first spectral channels;
24 the fiber collimator one or more other ports for second spectral channels;
25 ~~an~~ the output port for an output multi-wavelength optical signal;
26 a wavelength-selective device for spatially separating said spectral
27 channels;
28 a spatial array of beam-deflecting elements positioned such that each
element receives a corresponding one of said spectral channels, each of
said elements being individually and continuously controllable in two
dimensions to reflect its corresponding spectral channel to a selected one
of said output port or the fiber collimator ports and to control the power of
the spectral channel reflected to said output port or the fiber collimator
selected port.

21. Claim 23 of the '905 Patent amends claim 1 of the '368 Patent to replace "input port"

1 with “fiber collimator input port,” and replaces “one or more other ports” with “fiber collimator one
2 or more other ports.”

3 22. During the course of reissue proceedings on the ’127 Application, which resulted in
4 the ’905 Patent, Capella represented that claim 23 of the ’905 Patent has the same scope as claim 1 of
5 the underlying ’368 Patent, which was asserted against Cisco in the Prior Litigation.

6 23. In particular, Capella represented that the ports as recited in the claims of the ’368
7 Patent are “fiber collimator ports,” because the ’368 Patent “unambiguously uses collimator ports,”
8 and “defines ports in the ‘Summary of the Invention’ to be collimator ports that serve as the input
9 ports and the output ports,” and that “[t]he fact that the very first sentence of the Summary of the
10 Invention expressly provides that fiber collimators are the physical structure of ports is compelling
11 evidence that the claimed ports must be fiber collimators.” (*See* Exhibit E (Preliminary Amendment)
12 at 12). Capella also explained that “because the physical structure provided for ‘port’ in the
13 Summary of the Invention [of the ’368 Patent] is consistent with the characterization as a whole, ‘it is
14 apparent that the patentee was not merely providing examples of the invention, but rather that the
15 patentee intended for’ the term port to have a fiber collimator physical structure.” (*Id.*) The
16 applicant also represented that, in addition to the ’368 Patent specification “leav[ing] no ambiguity
17 [that] fiber collimators serve as the physical structure of the claimed ports,” that “[t]he specification
18 repeatedly makes this relationship clear,” and that this “characterization of ‘port’ as a ‘fiber
19 collimator’ is reinforced by the description of the [’368] [P]atent’s figures.” (*See id.* at 13).

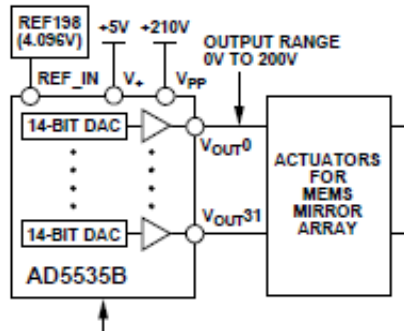
20 24. In addition, during prosecution of the ’127 Application, the examiner requested that
21 the applicant acknowledge that the “[’127] [A]pplication narrows claim 1 [of the ’368 Patent] by
22 claiming the ‘input port’ is a ‘fiber collimator input port’ and that the one or more ‘other ports’ are
23 ‘fiber collimator ports’ because merely claiming ‘input port’ and/or ‘other ports’ without limiting
24 them to ‘fiber collimator ports’ was unduly broad.” (*See* Exhibit E (Applicant’s Reply to Office
25 Action of September 5, 2019) at 12-13). The applicant refused to acknowledge that its amendment
26 narrowed the scope of any claim of the ’368 Patent, and instead identified newly added dependent
27 claim 50 as the basis for reissue. (*Id.* at 13).

28 25. As reflected in Capella’s statements to the United States Patent Office, Capella

1 contends that the ports in the claims of the '368 Patent were limited to fiber collimators ports, and
2 that there is no difference in scope between claim 1 of the '368 Patent, which it previously asserted
3 against Cisco, and claim 23 of the '905 Patent. Accordingly, Cisco has a reasonable apprehension
4 that Capella will allege that Cisco infringes one or more claims of the '905 Patent by Cisco for
5 making, using, or selling the Presently Sold ONS 15454 MSTP Products, Previously Sold ONS
6 15454 MSTP Products, and Previously Sold NCS2000 Products.

7 26. Cisco's Presently Sold ONS 15454 MSTP Product and Previously Sold ONS 15454
8 MSTP Products containing the 15454-40-SRM1-C, 15454-40-SRM2-C, and 15454-40-WXC-C line
9 cards do not infringe each and every claim of the '905 Patent for at least the reason that any alleged
10 "beam-deflecting elements" in the 15454-40-SRM1-C, 15454-40-SRM2-C, and 15454-40-WXC-C
11 line cards are not "individually and continuously controllable in two dimensions" or "control[ed]
12 dynamically and continuously . . . in two dimensions" as required by the claims of the '905 Patent.
13 As the specification of the '905 makes clear, continuous control requires the use of an analog control
14 mechanism. *See, e.g.*, Exhibit W ('905 Patent); 4:11-26, 7:20-35, 8:30-45 and 9:26-31. Further, the
15 applicant made clear during the IPR2014-01166 proceeding that continuous control cannot result in
16 a finite number of positions for the resulting micromirror. *See* Exhibit R, p. 46 ("[b]eing positionable
17 at a finite number of angles is not continuous control").

18 27. Cisco's 15454-40-SRM1-C, 15454-40-SRM2-C, and 15454-40-WXC-C line cards
19 control a MEMS mirror using the AD5535B DAC, and cannot do so continuously. (*See* Exhibit Q
20 (AD5535B DAC datasheet)). As shown in the diagram below, the AD5535B DAC uses a digital
21 signal, and not an analog signal, to control the micromirrors within Cisco's 15454-40-SRM1-C,
22 15454-40-SRM2-C, and 15454-40-WXC-C line cards. *See id.*, p. 14. In addition, because the
23 AD5535B DAC uses a digital signal, it is only capable of moving the micromirrors to a finite
24 number of positions, and thus does not provide continuous control.
25
26
27
28



28. Hence, any MEMS mirror of the Cisco's 15454-40-SRM1-C line card, 15454-40-SRM2-C, and 15454-40-WXC-C line cards is not "individually and continuously controllable in two dimensions" or "control[ed] dynamically and continuously . . . in two dimensions." For at least this reason, Cisco's Presently Sold ONS 15454 MSTP Product and Previously Sold ONS 15454 MSTP Products containing the 15454-40-SRM1-C, 15454-40-SRM2-C, and 15454-40-WXC-C line cards do not infringe the claims of the '905 Patent.

29. Cisco's Previously Sold ONS 15454 MSTP Products containing 15454-40-WSS-C and 15454-40-WSS-CE line cards, and Cisco's Previously Sold NCS2000 Products containing the NCS2000-16-WXC-FS line card do not infringe each and every claim of the '905 Patent for at least the reason that they do not contain a "beam-deflecting element" as required by the claims of the '905 Patent.

30. Cisco's 15454-40-WSS-C and 15454-40-WSS-CE use a Planar Lightwave Circuit and do not contain an array of microelectromechanical system mirrors. Cisco's NCS2000-16-WXC-FS line card uses Liquid Crystal on Silicon technology and does not contain an array of microelectromechanical system mirrors. Hence, Cisco's 15454-40-WSS-C, 15454-40-WSS-CE, and NCS2000-16-WXC-FS line cards do not contain a "beam-deflecting element" and Cisco's Previously Sold ONS 15454 MSTP Products and Previously Sold NCS2000 Products containing these line cards do not infringe the claims of the '905 Patent.

31. During the Prior Litigation, Cisco instituted *Inter Partes* Review proceeding IPR2014-01276 challenging claims of the '678 Patent on August 12, 2014 (*See* Exhibit O). A Final Decision issued by the PTAB on February 17, 2016, held that claims 1-4, 9, 10, 13, 17, 19-23, 27,

29, 44-46, 53, and 61-65 of the '678 Patent were invalid. (*See* Exhibit H). Ciena, Tellabs and Fujitsu also instituted *Inter Partes* Review proceedings against the claims of the '678 Patent. *See Ciena Corp. v. Capella Photonics, Inc.*, IPR2015-00894 (PTAB); *Coriant Operations, Inc. v. Capella Photonics, Inc.*, IPR2015-01971 (PTAB); and *Fujitsu Network Communications, Inc. v. Capella Photonics, Inc.*, IPR2015-00727 (PTAB).

32. The Final Judgments in IPR2014-01276, IPR2015-00894, IPR2015-01971, and IPR2015-00727 were affirmed by the Federal Circuit. *See Capella Photonics, Inc. v. Cisco Sys., Inc.*, 711 F. App'x 642 (Fed. Cir. 2018) (*See* Exhibit D).

33. Thereafter, Capella placed the '678 Patent into a reissue proceeding on June 29, 2018, as U.S. Application No. 16/023,183 ("the '183 Application"). (*See* Exhibit I (Reissue Patent Application Transmittal)). During prosecution of the '183 Application, Capella requested claims that amended the claims of the underlying '678 Patent that it had asserted against Cisco in the Prior Litigation ("Previously Asserted '678 Claims") to replace the "input port" and "output ports," as recited in the Previously Asserted '678 Claims, with a "fiber collimator input port" and "fiber collimator output ports" (*See e.g.*, Exhibit I (Second Preliminary Amendment) at 37).

34. The United States Patent Office issued a Notice of Allowance for the '183 Application on November 8, 2019. (*See* Exhibit P). An Issue Notification for the '183 Application was published by the United States Patent Office February 26, 2020, stating that the '183 Application would result in issuance of U.S. Patent RE 47,906 on March 17, 2020. (*See* Exhibit J).

35. Claim 68 is the first independent claim of the '906 Patent. A comparison of Claim 68 of the '906 Patent against Claim 1 of the '678 Patent, which was previously asserted against Cisco and alleged to be infringed by the Presently Sold ONS 15454 MSTP Products, Previously Sold ONS 15454 MSTP Products, and Previously Sold NCS2000 Products, is shown below with the applicant's added language underlined and the applicant's removed language struck through:

68. A wavelength-separating-routing apparatus, comprising:
- a) multiple fiber collimators, providing and serving as an input port for a multi-wavelength optical signal and a plurality of output ports;
 - b) a wavelength-separator, for separating said multi-wavelength optical signal from said fiber collimator input port into multiple spectral channels;
 - c) a beam-focuser, for focusing said spectral channels into corresponding

- 1 spectral spots; and
 2 d) a spatial array of channel micromirrors positioned such that each
 3 channel micromirror receives one of said spectral channels, said
 4 channel micromirrors being pivotal about two axes and being
 5 individually and continuously controllable to reflect corresponding
 6 received spectral channels into any selected ones of said fiber
 7 collimator output ports and to control the power of said received
 8 spectral channels coupled into said fiber collimator output ports.

6 36. Claim 68 of the '906 Patent amends claim 1 of the '678 Patent to replace "input port"
 7 with "fiber collimator input port," and replaces "output ports" with "fiber collimator output ports."

8 37. During the course of reissue proceedings on the '183 Application, which resulted in
 9 the '906 Patent, Capella represented that claim 68 of the '906 Patent has the same scope as claim 1 of
 10 the underlying '678 Patent, which was asserted against Cisco in the Prior Litigation.

11 38. In particular, Capella represented that the ports as recited in the claims of the '678
 12 Patent are "fiber collimator ports," because the '678 Patent "unambiguously uses collimator ports,"
 13 and "defines ports in the 'Summary of the Invention' to be collimator ports that serve as the input
 14 ports and the output ports," and that "[t]he fact that the very first sentence of the Summary of the
 15 Invention expressly provides that fiber collimators are the physical structure of ports is compelling
 16 evidence that the claimed ports must be fiber collimators." (*See* Exhibit I (Preliminary Amendment)
 17 at 19). Capella also explained that "because the physical structure provided for 'port' in the
 18 Summary of the Invention [of the '678 Patent] is consistent with the characterization as a whole, 'it is
 19 apparent that the patentee was not merely providing examples of the invention, but rather that the
 20 patentee intended for' the term port to have a fiber collimator physical structure." (*Id.*) The
 21 applicant also represented that, in addition to the '678 Patent specification "leav[ing] no ambiguity
 22 [that] fiber collimators serve as the physical structure of the claimed ports," that "[t]he specification
 23 repeatedly makes this relationship clear," and that this "characterization of 'port' as a 'fiber
 24 collimator' is reinforced by the description of the ['678] [P]atent's figures." (*See id.* at 20).

25 39. In addition, during prosecution of the '183 Application, the examiner requested that
 26 the applicant acknowledge that the "[183] [A]pplication narrows claim 1 [of the '678 Patent] by
 27 claiming the 'output port' of the wavelength-separating-routing apparatus is a 'fiber collimator output
 28 port' because merely claiming 'output port' without limiting the 'output port' to a 'fiber collimator

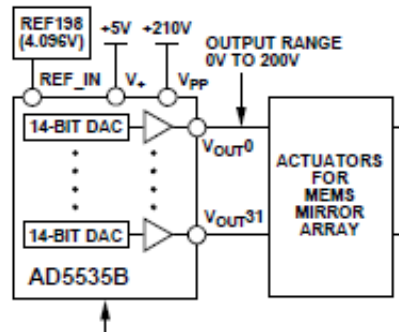
1 output port' was unduly broad." (*See* Exhibit I (Applicant's Reply to Office Action of September 5,
 2 2019) at 20). The applicant refused to acknowledge that its amendment narrowed the scope of any
 3 claim of the '678 Patent, and instead identified newly added dependent claim 135 as the basis for
 4 reissue. (*Id.*)

5 40. As reflected in Capella's statements to the United States Patent Office, Capella
 6 contends that the ports in the claims of the '678 Patent were limited to fiber collimators ports, and
 7 that there is no difference in scope between claim 1 of the '678 Patent, which it previously asserted
 8 against Cisco, and claim 68 of the '906 Patent. Accordingly, Cisco has a reasonable apprehension
 9 that Capella will allege that Cisco infringes one or more claims of the '906 Patent by making, using,
 10 or selling the 15454-40-SRM1-C line card, the 15454-40-SRM2-C line card, the NCS2000-9-SMR-
 11 xx-FS line card, the NCS2000-20-SMR-FS line card, and NCS2000-20-SMRFS-CV line card.

12 41. Cisco's Presently Sold ONS 15454 MSTP Product and Previously Sold ONS 15454
 13 MSTP Products containing the 15454-40-SRM1-C, 15454-40-SRM2-C, and 15454-40-WXC-C line
 14 cards do not infringe each and every claim 68-88, and 100-139 of the '906 Patent for at least the
 15 reason that any alleged "micromirror" in the 15454-40-SRM1-C, 15454-40-SRM2-C, and 15454-40-
 16 WXC-C line cards is not "pivotal about two axes and . . . individually and continuously controllable"
 17 or "individually and continuously controllable," or "dynamically and continuously control[led] . . . in
 18 two dimensions," as required by claims 68-88 and 100-139 of the '906 Patent. As the specification
 19 of the '906 makes clear, continuous control requires the use of an analog control mechanism. *See*,
 20 *e.g.*, Exhibit X ('906 Patent); 4:20-35, 7:32-41, 8:42-57, and 9:40-45. Further, the applicant made
 21 clear during the IPR2014-01276 proceeding that continuous control cannot result in a finite number
 22 of positions for the resulting micromirror. *See* Exhibit S, p. 48 ("[b]eing positionable at a finite
 23 number of angles is not continuous control").

24 42. Cisco's 15454-40-SRM1-C, 15454-40-SRM2-C, and 15454-40-WXC-C line cards
 25 control a MEMS mirror using the AD5535B DAC, and cannot do so continuously. (*See* Exhibit Q
 26 (AD5535B DAC datasheet)). As shown in the diagram below, the AD5535B DAC uses a digital
 27 signal, and not an analog signal, to control the micromirrors within Cisco's 15454-40-SRM1-C,
 28 15454-40-SRM2-C, and 15454-40-WXC-C line cards. *See id.*, p. 14. In addition, the because the

AD5535B DAC uses a digital signal, it is only capable of moving the micromirrors to a finite number of positions, and thus does not provide continuous control.



43. Hence, the MEMS mirrors of Cisco's 15454-40-SRM1-C line card, 15454-40-SRM2-C, and 15454-40-WXC-C line cards is not "pivotal about two axes and . . . individually and continuously controllable" or "individually and continuously controllable," or "dynamically and continuously control[led] . . . in two dimensions." For at least this reason, Cisco's Presently Sold ONS 15454 MSTP Product and Previously Sold ONS 15454 MSTP Products containing the 15454-40-SRM1-C, 15454-40-SRM2-C, and 15454-40-WXC-C line cards do not infringe claims 68-88 and 100-139 of the '906 Patent.

44. Cisco's 15454-40-WSS-C and 15454-40-WSS-CE use a Planar Lightwave Circuit and do not contain micromirrors. Cisco's NCS2000-16-WXC-FS line card uses Liquid Crystal on Silicon technology and does not contain micromirrors. Hence, Cisco's 15454-40-WSS-C, 15454-40-WSS-CE, and NCS2000-16-WXC-FS line cards do not contain a "micromirrors" and Cisco's Previously Sold ONS 15454 MSTP Products and Previously Sold NCS2000 Products containing these line cards do not infringe the claims of the '906 Patent.

45. On February 26, 2020, the United States Patent and Trademark office issued a notice that the '905 Patent and the '906 Patent would issue on March 17, 2020. Cisco filed the instant lawsuit in this Court, the Court in which the Previous Litigation and the Other Previous Lawsuits had been pending. Cappella filed the Capella 2020 Lawsuits against Fujitsu and Tellabs/Infinera in the Eastern District of Texas and against Ciena in the District of Maryland.

**COUNT I – DECLARATORY JUDGMENT OF NON-INFRINGEMENT
OF U.S. PATENT NO. RE 47,905**

46. Cisco incorporates by reference the allegations in the paragraphs above.

47. There exists an actual and justiciable controversy regarding the non-infringement of the '905 Patent by Cisco at least because Defendant contends that Cisco infringes the '905 Patent through the offer for sale or sale of the Presently Sold ONS 15454 MSTP Products, Previously Sold ONS 15454 MSTP Products, and Previously Sold NCS2000 Products, and Cisco denies infringement.

48. Cisco's Presently Sold ONS 15454 MSTP Products, Previously Sold ONS 15454 MSTP Products, and Previously Sold NCS2000 Products do not literally infringe, directly or indirectly, each and every claim of the '905 Patent. Accordingly, Cisco requests a judicial determination of its rights, duties, and obligations with regard to non-infringement of each of the claims of the '905 Patent.

49. A judicial declaration is necessary and appropriate so that Cisco may ascertain its rights regarding non-infringement of the '905 Patent.

**COUNT II – DECLARATORY JUDGMENT OF NON-INFRINGEMENT
OF U.S. PATENT NO. RE 47,906**

50. Cisco incorporates by reference the allegations in the paragraphs above.

51. There exists an actual and justiciable controversy regarding the non-infringement of the '906 Patent by Cisco at least because Defendant contends that Cisco infringes claims of the '906 Patent through the offer for sale or sale of the Presently Sold ONS 15454 MSTP Products, Previously Sold ONS 15454 MSTP Products, and Previously Sold NCS2000 Products and Cisco denies infringement.

52. Cisco's Presently Sold ONS 15454 MSTP Products, Previously Sold ONS 15454 MSTP Products, and Previously Sold NCS2000 Products do not literally infringe, directly or indirectly, claims 68-88 and 100-139 of the '906 Patent. Accordingly, Cisco requests a judicial determination of its rights, duties, and obligations with regard to non-infringement of claims 68-88 and 100-139 of the '906 Patent.

53. A judicial declaration is necessary and appropriate so that Cisco may ascertain its rights regarding non-infringement of the '906 Patent.

PRAYER FOR RELIEF

Cisco prays for judgment against Defendant as follows:

A. A declaration that Cisco has not infringed and does not infringe, any claims of the '905 Patent or claims 68-88 and 100-139 of the '906 Patent through the sale or offer for sale of the Previously Sold ONS 15454 MSTP Products, Presently Sold ONS 15454 MSTP Products, or Previously Sold NCS2000 Products.

B. A declaration that this case is exceptional and that Cisco is entitled to an award of reasonable attorneys' fees pursuant to 35 U.S.C. § 285; and

C. Any such other and further relief as the Court may deem just and fair.

JURY DEMAND

Cisco demands a jury trial of all issues so triable.

Dated: June 1, 2020

WINSTON & STRAWN LLP

By: /s/ K. Padmanabhan
David Enzminger
Krishnan Padmanabhan
Louis Campbell

Attorneys for Plaintiff
CISCO SYSTEMS, INC.